



This document includes Appendix I: Constituent Concentrations for WPB 110 Baseline, of the Draft EPA Report "Surface Vessel Bilgewater/Oil Water Separator Characterization Analysis Report" published in August 2003. The reference number is: EPA-842-D-06-017

DRAFT
Characterization Analysis Report
Surface Vessel Bilgewater/Oil Water
Separator

Appendix I: Constituent Concentrations for
WPB 110 Baseline

August 2003

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Baseline

Discharge: Surface Vessel Bilgewater/OWS Discharge
Vessel Group: Small Diesel Ships (65 feet or more in length and under 400 tons of displacement)
Profile Description: Baseline
MPCD Option Group: None

Profile Constituents

Metals						
Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments
ALUMINUM	7429905	4.9E+01	µg/L		Log Mean Normal	Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (49.4619)
ALUMINUM, DISSOLVED	7429905*	4.1E+01	µg/L		Log Mean Normal	Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (41.2052)
ANTIMONY	7440360	6.6E+00	µg/L		Log Mean Normal	Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (6.589)
ANTIMONY, DISSOLVED	7440360*	5.3E+00	µg/L		Log Mean Normal	Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (5.2745)
BARIUM	7440393	3.6E+01	µg/L		Log Mean Normal	Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (35.9678)
BARIUM, DISSOLVED	7440393*	3.5E+01	µg/L		Log Mean Normal	Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (35.4184)
BORON	7440428	1.6E+03	µg/L		Log Mean Normal	Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (1625.15)
BORON, DISSOLVED	7440428*	1.6E+03	µg/L		Log Mean Normal	Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (1616.78)
CADMIUM	7440439	2.3E+00	µg/L		Log Mean Normal	Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (2.3321)
CALCIUM	7440702	1.2E+05	µg/L		Log Mean Normal	Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (123095)
CALCIUM, DISSOLVED	7440702*	1.2E+05	µg/L		Log Mean Normal	Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (124024)
CHROMIUM	7440473	5.2E+00	µg/L		Log Mean Normal	Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (5.1521)
CHROMIUM, DISSOLVED	7440473*	3.8E+00	µg/L		Log Mean Normal	Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (3.8151)
COBALT, DISSOLVED	7440484*	4.8E+00	µg/L		Log Mean Normal	Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (4.7859)
COPPER	7440508	2.0E+02	µg/L		Log Mean Normal	Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (199.73)
COPPER, DISSOLVED	7440508*	1.3E+01	µg/L		Log Mean Normal	Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (13.2124)

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Baseline

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
IRON	7439896	3.4E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (339.79)
IRON, DISSOLVED	7439896*	3.9E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (38.9926)
LEAD	7439921	8.9E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (8.8976)
MAGNESIUM	7439954	2.7E+05	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (268160)
MAGNESIUM, DISSOLVED	7439954*	2.7E+05	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (265748)
MANGANESE	7439965	1.1E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (107.071)
MANGANESE, DISSOLVED	7439965*	1.0E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (102.889)
MOLYBDENUM	7439987	4.6E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (4.6495)
MOLYBDENUM, DISSOLVED	7439987*	4.7E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (4.7083)
NICKEL	7440020	1.1E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (112.351)
NICKEL, DISSOLVED	7440020*	7.9E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (78.7668)
SELENIUM	7782492	7.2E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (7.1961)
SELENIUM, DISSOLVED	7782492*	5.0E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (4.9682)
SODIUM	7440235	2.4E+06	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (2.43864e+006)
SODIUM, DISSOLVED	7440235*	2.4E+06	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (2.40253e+006)
THALLIUM, DISSOLVED	7440280*	1.5E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (15.4143)
TIN	7440315	9.9E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (9.873)
TIN, DISSOLVED	7440315*	9.7E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (9.674)

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Baseline

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
ZINC	7440666	4.1E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (411.613)
ZINC, DISSOLVED	7440666*	9.8E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (97.8918)

Organics

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
2,4-DIMETHYLPHENOL	105679	2.6E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (25.9607)
2-BUTANONE	78933	5.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (50.7596)
2-METHYLNAPHTHALENE	91576	1.3E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (13.06)
2-PROPANONE	67641	6.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (59.7926)
4-METHYL-2-PENTANONE	108101	7.4E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (73.5237)
ACETOPHENONE	98862	1.4E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (13.5566)
BENZENE	71432	2.2E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (21.877)
BENZOIC ACID	65850	6.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (61.4757)
BENZYL ALCOHOL	100516	1.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (10)
BIPHENYL	92524	1.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (11.0137)
DIMETHYL PHTHALATE	131113	1.2E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (12.255)
ETHYLBENZENE	100414	1.7E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (16.7792)
M+P-XYLENE	179601231	4.6E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (45.5818)
N-DECANE	124185	1.5E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (15.4677)
N-DOCOSANE	629970	1.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (10.8314)

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Baseline

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
N-DODECANE	112403	3.5E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (34.671)
N-EICOSANE	112958	4.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (39.6403)
N-HEXADECANE	544763	4.3E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (43.4128)
N-OCTADECANE	593453	3.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (30.3471)
N-TETRACOSANE	646311	1.2E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (11.7196)
N-TETRADECANE	629594	2.4E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (24.2688)
NAPHTHALENE	91203	1.3E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (13.1472)
O-CRESOL	95487	1.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (10.2725)
O-XYLENE	95476	3.7E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (37.1344)
PHENANTHRENE	85018	1.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (11.3029)
PHENOL	108952	1.4E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (13.7958)
TOLUENE	108883	3.6E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (35.6118)

Nutrients/Classicals

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
ALKALINITY	T005	2.0E+02	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (195.286)
AMMONIA AS NITROGEN	7664417	1.2E+00	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (1.2347)
BIOCHEMICAL OXYGEN DEMAND (BOD5)	C003	5.8E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (57.5354)
CHEMICAL OXYGEN DEMAND	C004	3.4E+02	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (340.531)
CHLORIDE	16887006	4.5E+03	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (4545.61)

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Baseline

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
HEXANE EXTRACTABLE MATERIAL	C036	2.7E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (26.9571)
NITRATE/NITRITE	C005	3.0E+00	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (2.9586)
SGT-HEM	C037	1.4E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (14.4141)
SULFATE	14808798	5.0E+02	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (502.322)
TOTAL DISSOLVED SOLIDS	C010	7.6E+03	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (7555.32)
TOTAL KJELDAHL NITROGEN	C021	3.0E+00	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (3.0147)
TOTAL ORGANIC CARBON	C012	2.7E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (26.552)
TOTAL PHOSPHORUS	14265442	2.3E-01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (0.2267)
TOTAL SULFIDE	18496258	3.0E+00	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (3.0169)
TOTAL SUSPENDED SOLIDS	C009	2.3E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (22.6306)
VOLATILE RESIDUE	C030	1.4E+03	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (1428.58)

Others

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
HYDRAZINE	302012	1.5E-01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Baseline Sampling Data from LSD 41 (0.1466)

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Gravity Coalescence (Primary Treatment)

Discharge: Surface Vessel Bilgewater/OWS Discharge

Vessel Group: Small Diesel Ships (65 feet or more in length and under 400 tons of displacement)

Profile Description: Effluent

MPCD Option Group: Gravity Coalescence

Profile Constituents

Metals							
Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
ALUMINUM	7429905	5.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (50.9506)
ALUMINUM, DISSOLVED	7429905*	4.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (39.5905)
ANTIMONY	7440360	6.0E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (6.0151)
ANTIMONY, DISSOLVED	7440360*	9.1E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (9.057)
ARSENIC	7440382	1.3E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (1.3048)
ARSENIC, DISSOLVED	7440382*	2.0E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (1.9953)
BARIUM	7440393	3.6E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (35.9465)
BARIUM, DISSOLVED	7440393*	3.6E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (36.1307)
BORON	7440428	1.7E+03	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (1705.97)
BORON, DISSOLVED	7440428*	1.7E+03	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (1681.21)
CADMIUM	7440439	2.3E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (2.3437)
CALCIUM	7440702	1.2E+05	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (121630)
CALCIUM, DISSOLVED	7440702*	1.2E+05	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (122538)
CHROMIUM	7440473	4.3E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (4.2993)
CHROMIUM, DISSOLVED	7440473*	4.9E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (4.913)
COPPER	7440508	1.9E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (188.131)

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Gravity Coalescence (Primary Treatment)

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
COPPER, DISSOLVED	7440508*	1.5E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (15.3704)
IRON	7439896	2.7E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (265.526)
IRON, DISSOLVED	7439896*	4.2E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (41.5693)
LEAD	7439921	9.1E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (9.1418)
MAGNESIUM	7439954	2.5E+05	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (251622)
MAGNESIUM, DISSOLVED	7439954*	2.5E+05	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (247524)
MANGANESE	7439965	1.1E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (106.608)
MANGANESE, DISSOLVED	7439965*	1.0E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (103.257)
MOLYBDENUM	7439987	4.5E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (4.5198)
MOLYBDENUM, DISSOLVED	7439987*	4.9E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (4.9409)
NICKEL	7440020	1.2E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (119.191)
NICKEL, DISSOLVED	7440020*	7.5E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (74.8477)
SELENIUM	7782492	6.9E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (6.9208)
SODIUM	7440235	2.3E+06	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (2.29139e+006)
SODIUM, DISSOLVED	7440235*	2.3E+06	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (2.26972e+006)
THALLIUM, DISSOLVED	7440280*	1.2E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (12.4099)
TIN	7440315	9.2E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (9.213)
TIN, DISSOLVED	7440315*	9.2E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (9.1921)

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Gravity Coalescence (Primary Treatment)

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
ZINC	7440666	4.8E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (479.699)
ZINC, DISSOLVED	7440666*	1.0E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (103.022)

Organics

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
2,4-DIMETHYLPHENOL	105679	2.9E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (28.6795)
2-BUTANONE	78933	5.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (50.7345)
2-METHYLNAPHTHALENE	91576	1.4E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (13.5493)
2-PROPANONE	67641	6.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (60.1094)
4-METHYL-2-PENTANONE	108101	7.6E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (76.462)
ACETOPHENONE	98862	1.3E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (12.7565)
BENZENE	71432	2.5E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (25.0949)
BENZOIC ACID	65850	5.8E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (57.814)
BENZYL ALCOHOL	100516	1.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (10.0489)
CARBON DISULFIDE	75150	1.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (10.0198)
DIMETHYL PHTHALATE	131113	1.2E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (12.1541)
ETHYLBENZENE	100414	1.9E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (18.8394)
M+P-XYLENE	179601231	5.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (50.9686)
N-DECANE	124185	1.2E+01	µg/L		Log Mean		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Gravity Coalescence (Primary Treatment)

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
					Normal		(12.0822)
N-DOCOSANE	629970	1.2E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (11.92)
N-DODECANE	112403	3.3E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (33.0109)
N-EICOSANE	112958	2.8E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (27.603)
N-HEXADECANE	544763	4.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (40.6853)
N-OCTADECANE	593453	2.8E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (28.3045)
N-TETRACOSANE	646311	1.2E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (12.2374)
N-TETRADECANE	629594	2.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (19.5767)
NAPHTHALENE	91203	1.4E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (13.5076)
O-CRESOL	95487	1.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (10.5199)
O-XYLENE	95476	4.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (40.2333)
PHENANTHRENE	85018	1.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (10.6264)
PHENOL	108952	1.3E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (12.5618)
TOLUENE	108883	5.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (50.6513)

Nutrients/Classicals

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
ALKALINITY	T005	2.1E+02	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (208.77)
AMMONIA AS NITROGEN	7664417	1.6E+00	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (1.5647)

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Gravity Coalescence (Primary Treatment)

BIOCHEMICAL OXYGEN DEMAND (BOD5)	C003	2.9E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (28.8527)
CHEMICAL OXYGEN DEMAND	C004	3.8E+02	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (379.484)
CHLORIDE	16887006	4.4E+03	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (4385.57)
HEXANE EXTRACTABLE MATERIAL	C036	2.2E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (21.525)
NITRATE/NITRITE	C005	3.2E+00	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (3.1921)
SGT-HEM	C037	1.0E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (10.4059)
SULFATE	14808798	4.5E+02	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (446.507)
TOTAL DISSOLVED SOLIDS	C010	7.1E+03	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (7129.17)
TOTAL KJELDAHL NITROGEN	C021	3.5E+00	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (3.5119)
TOTAL ORGANIC CARBON	C012	2.7E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (27.4521)
TOTAL PHOSPHORUS	14265442	1.8E-01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (0.1827)
TOTAL SULFIDE	18496258	2.6E+00	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (2.6082)
TOTAL SUSPENDED SOLIDS	C009	2.3E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (23.1527)
VOLATILE RESIDUE	C030	1.3E+03	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (1261.92)

Others

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
HYDRAZINE	302012	1.6E-01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 (0.1607)

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Gravity Coalescence plus Filter Media (Primary Treatment plus Filter Media)

Discharge: Surface Vessel Bilgewater/OWS Discharge
Vessel Group: Small Diesel Ships (65 feet or more in length and under 400 tons of displacement)
Profile Description: Effluent
MPCD Option Group: Gravity coalescence + filter media

Profile Constituents

Metals

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
ALUMINUM	7429905	5.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (50.9506)
ANTIMONY	7440360	6.0E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (6.0151)
ARSENIC	7440382	1.3E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (1.3048)
BARIUM	7440393	3.6E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (35.9465)
BORON	7440428	1.7E+03	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (1705.97)
CADMIUM	7440439	2.3E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (2.3437)
CALCIUM	7440702	1.2E+05	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (121630)
CHROMIUM	7440473	4.3E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (4.2993)
COPPER	7440508	9.4E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (94.0657)
IRON	7439896	1.1E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (106.21)
LEAD	7439921	9.1E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (9.1418)
MAGNESIUM	7439954	2.5E+05	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (251622)
MANGANESE	7439965	1.1E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (106.608)
MOLYBDENUM	7439987	4.5E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (4.5198)
NICKEL	7440020	8.9E+01	µg/L		Log Mean		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Gravity Coalescence plus Filter Media (Primary Treatment plus Filter Media)

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
					Normal		Sampling Data from LSD 41 and CDNSWC Report on MPCD T (89.3929)
SELENIUM	7782492	6.9E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (6.9208)
SODIUM	7440235	2.3E+06	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (2.29139e+006)
TIN	7440315	9.2E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (9.213)
ZINC	7440666	2.9E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (287.82)

Organics

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
2-BUTANONE	78933	5.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (50.7345)
2-PROPANONE	67641	6.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (60.1094)
4-METHYL-2-PENTANONE	108101	7.6E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (76.462)
BENZENE	71432	2.5E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (25.0949)
CARBON DISULFIDE	75150	1.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (10.0198)
ETHYLBENZENE	100414	1.9E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (18.8394)
M+P-XYLENE	179601231	1.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (10.1937)
N-DODECANE	112403	1.3E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (13.2044)
N-EICOSANE	112958	1.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (11.0412)
N-HEXADECANE	544763	1.6E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (16.2741)
N-OCTADECANE	593453	1.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Gravity Coalescence plus Filter Media (Primary Treatment plus Filter Media)

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
							MPCD T (11.3218)
O-XYLENE	95476	4.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (40.2333)
TOLUENE	108883	5.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (50.6513)

Nutrients/Classicals

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
ALKALINITY	T005	2.1E+02	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (208.77)
AMMONIA AS NITROGEN	7664417	1.6E+00	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (1.5647)
BIOCHEMICAL OXYGEN DEMAND (BOD5)	C003	2.9E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (28.8527)
CHEMICAL OXYGEN DEMAND	C004	3.8E+02	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (379.484)
CHLORIDE	16887006	4.4E+03	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (4385.57)
HEXANE EXTRACTABLE MATERIAL	C036	6.5E+00	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (6.4575)
NITRATE/NITRITE	C005	1.9E+00	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (1.9153)
SULFATE	14808798	4.5E+02	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (446.507)
TOTAL DISSOLVED SOLIDS	C010	7.1E+03	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (7129.17)
TOTAL KJELDAHL NITROGEN	C021	3.5E+00	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (3.5119)
TOTAL ORGANIC CARBON	C012	2.7E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (27.4521)
TOTAL PHOSPHORUS	14265442	1.8E-01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (0.1827)
TOTAL SUSPENDED SOLIDS	C009	1.0E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (9.9557)

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Gravity Coalescence plus Filter Media (Primary Treatment plus Filter Media)

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
VOLATILE RESIDUE	C030	1.3E+03	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (1261.92)

Others

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
HYDRAZINE	302012	1.6E-01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on Gravity Coalescer Sampling Data from LSD 41 and CDNSWC Report on MPCD T (0.1607)

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Collection, Holding and Transfer (CHT)

Discharge: Surface Vessel Bilgewater/OWS Discharge
Vessel Group: Small Diesel Ships (65 feet or more in length and under 400 tons of displacement)
Profile Description: Effluent
MPCD Option Group: Collection Holding and Transfer

Profile Constituents

Metals							
Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
ALUMINUM	7429905	4.9E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (49.4619)
ALUMINUM, DISSOLVED	7429905*	4.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (41.2052)
ANTIMONY	7440360	6.6E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (6.589)
ANTIMONY, DISSOLVED	7440360*	5.3E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (5.2745)
BARIUM	7440393	3.6E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (35.9678)
BARIUM, DISSOLVED	7440393*	3.5E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (35.4184)
BORON	7440428	1.6E+03	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (1625.15)
BORON, DISSOLVED	7440428*	1.6E+03	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (1616.78)
CADMIUM	7440439	2.3E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (2.3321)
CALCIUM	7440702	1.2E+05	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (123095)
CALCIUM, DISSOLVED	7440702*	1.2E+05	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (124024)
CHROMIUM	7440473	5.2E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (5.1521)
CHROMIUM, DISSOLVED	7440473*	3.8E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (3.8151)
COBALT, DISSOLVED	7440484*	4.8E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (4.7859)
COPPER	7440508	2.0E+02	µg/L		Log Mean		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Collection, Holding and Transfer (CHT)

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
					Normal		(199.73)
COPPER, DISSOLVED	7440508*	1.3E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (13.2124)
IRON	7439896	3.4E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (339.79)
IRON, DISSOLVED	7439896*	3.9E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (38.9926)
LEAD	7439921	8.9E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (8.8976)
MAGNESIUM	7439954	2.7E+05	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (268160)
MAGNESIUM, DISSOLVED	7439954*	2.7E+05	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (265748)
MANGANESE	7439965	1.1E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (107.071)
MANGANESE, DISSOLVED	7439965*	1.0E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (102.889)
MOLYBDENUM	7439987	4.6E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (4.6495)
MOLYBDENUM, DISSOLVED	7439987*	4.7E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (4.7083)
NICKEL	7440020	1.1E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (112.351)
NICKEL, DISSOLVED	7440020*	7.9E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (78.7668)
SELENIUM	7782492	7.2E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (7.1961)
SELENIUM, DISSOLVED	7782492*	5.0E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (4.9682)
SODIUM	7440235	2.4E+06	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (2.43864e+006)
SODIUM, DISSOLVED	7440235*	2.4E+06	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (2.40253e+006)

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Collection, Holding and Transfer (CHT)

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
THALLIUM, DISSOLVED	7440280*	1.5E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (15.4143)
TIN	7440315	9.9E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (9.873)
TIN, DISSOLVED	7440315*	9.7E+00	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (9.674)
ZINC	7440666	4.1E+02	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (411.613)
ZINC, DISSOLVED	7440666*	9.8E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (97.8918)

Organics

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
2,4-DIMETHYLPHENOL	105679	2.6E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (25.9607)
2-BUTANONE	78933	5.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (50.7596)
2-METHYLNAPHTHALENE	91576	1.3E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (13.06)
2-PROPANONE	67641	6.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (59.7926)
4-METHYL-2-PENTANONE	108101	7.4E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (73.5237)
ACETOPHENONE	98862	1.4E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (13.5566)
BENZENE	71432	2.2E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (21.877)
BENZOIC ACID	65850	6.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (61.4757)
BENZYL ALCOHOL	100516	1.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (10)
BIPHENYL	92524	1.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (11.0137)
DIMETHYL PHTHALATE	131113	1.2E+01	µg/L		Log Mean		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Collection, Holding and Transfer (CHT)

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
					Normal		(12.255)
ETHYLBENZENE	100414	1.7E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (16.7792)
M+P-XYLENE	179601231	4.6E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (45.5818)
N-DECANE	124185	1.5E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (15.4677)
N-DOCOSANE	629970	1.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (10.8314)
N-DODECANE	112403	3.5E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (34.671)
N-EICOSANE	112958	4.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (39.6403)
N-HEXADECANE	544763	4.3E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (43.4128)
N-OCTADECANE	593453	3.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (30.3471)
N-TETRACOSANE	646311	1.2E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (11.7196)
N-TETRADECANE	629594	2.4E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (24.2688)
NAPHTHALENE	91203	1.3E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (13.1472)
O-CRESOL	95487	1.0E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (10.2725)
O-XYLENE	95476	3.7E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (37.1344)
PHENANTHRENE	85018	1.1E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (11.3029)
PHENOL	108952	1.4E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (13.7958)
TOLUENE	108883	3.6E+01	µg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (35.6118)

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Collection, Holding and Transfer (CHT)

Nutrients/Classicals							
Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
ALKALINITY	T005	2.0E+02	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (195.286)
AMMONIA AS NITROGEN	7664417	1.2E+00	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (1.2347)
BIOCHEMICAL OXYGEN DEMAND (BOD5)	C003	5.8E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (57.5354)
CHEMICAL OXYGEN DEMAND	C004	3.4E+02	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (340.531)
CHLORIDE	16887006	4.5E+03	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (4545.61)
HEXANE EXTRACTABLE MATERIAL	C036	2.7E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (26.9571)
NITRATE/NITRITE	C005	3.0E+00	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (2.9586)
SGT-HEM	C037	1.4E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (14.4141)
SULFATE	14808798	5.0E+02	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (502.322)
TOTAL DISSOLVED SOLIDS	C010	7.6E+03	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (7555.32)
TOTAL KJELDAHL NITROGEN	C021	3.0E+00	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (3.0147)
TOTAL ORGANIC CARBON	C012	2.7E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (26.552)
TOTAL PHOSPHORUS	14265442	2.3E-01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (0.2267)
TOTAL SULFIDE	18496258	3.0E+00	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (3.0169)
TOTAL SUSPENDED SOLIDS	C009	2.3E+01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (22.6306)
VOLATILE RESIDUE	C030	1.4E+03	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (1428.58)

Others

Constituent	CAS#	Profile Value	Profile Qualifier	Calc. Method	Comments	Calculation Description
-------------	------	---------------	-------------------	--------------	----------	-------------------------

DRAFT – Surface Vessel Bilgewater CHAR, Appendix I: Constituent Concentrations WPB 110
Collection, Holding and Transfer (CHT)

Constituent	CAS#	Profile Value		Profile Qualifier	Calc. Method	Comments	Calculation Description
HYDRAZINE	302012	1.5E-01	mg/L		Log Mean Normal		Log Mean Normal of Process Knowledge Source: Based on LSD 41 Baseline Data and CDNSWC Report on MPCD Treatment Capabilities (0.1466)